

291 1st half
Ch 5 Rev

p836 -

5.1 6, 8-10, 14, 18, 20, 21, 23

6. $\frac{-16x^8}{8x^2} = -2x^6$

8. $\frac{p^5 q^7}{p^2 q^5} = p^3 q^2$

9. $-(m^3)^5 = -m^{15}$

10. $\frac{x}{x^7} = \frac{1}{x^6}$

14. $(x^2)^5 = x^{10}$

18. $3x^0 = 3$

20. $\left(\frac{5a^7}{2b^5c}\right)^3 = \frac{125a^{21}}{8b^{15}c^3}$

21. $(-3)^2 = \frac{1}{(-3)^2} = \frac{1}{9}$

23. $\frac{1}{x^{-3}} = x^3$

5.2 7, 10, 17

7. $(4x^3 + 5x - 7x^2) + (-2x^3 + 5x^2 - 7y^2)$
 $2x^3 - 2x^2 + 5x - 7y^2$

10. $(-3x^2 + 7x + 23) - (-8x^2 - 5x + 13)$
 $5x^2 + 12x + 10$

17. $(3x - 5)(2x - 1)$
 $6x^2 - 3x - 10x + 5$
 $6x^2 - 13x + 5$

5.3 $8, 12$ $15, 23, 35, 41$

8.

$$g+3 \overline{) 8g^3 + 19g^2 - 12g + 9}$$

$$\underline{- 8g^3 + 24g^2}$$

$$-5g^2 - 12g$$

$$\underline{+ 5g^2 + 15g}$$

$$3g + 9$$

$$\underline{- 3g + 9}$$

$$0$$

$$8g^2 - 5g + 3$$

12.

$r+3$

$$\overline{) 2r^2 + 5r - 3}$$

$$\underline{- 2r^2 + 6r}$$

$$-r - 3$$

$$\underline{-r - 3}$$

$$0$$

$$2r - 1$$

15. $-8 \mid 1 \ 8 \ 0 \ 3 \ 17$

$-8 \ 0 \ 0 \ -24$

$1 \ 0 \ 0 \ 3 \ -7$

Place Holder!

$$\boxed{q^3 + 3 + \frac{-7}{q+8}}$$

23. $3 \mid 2 \ -11 \ 12 \ 9$

$6 \ -15 \ -9$

$2 \ -5 \ -3 \ 0$

$$\boxed{2b^2 - 5b - 3}$$

5.4 2, 3-5, 15, 17, 19 + 2 problems

① $x^3 - 27$

$(x-3)(x^2+3x+9)$

② $y^3 + 125$

$(y+5)(y^2-5y+25)$

2. $10ax - 2xy - 15ab + 3by$

$2x(5a-y) - 3b(5a-y)$

$(2x-3b)(5a-y)$

~~$\begin{array}{cc} 6 & \\ 2 & 3 \\ 5 & \end{array}$~~

3. $x^2 + x - 42$

$(x+7)(x-6)$

4. $2x^2 + 5x + 3$

$2x^2 + 2x + 3x + 3$

$2x(x+1) + 3(x+1)$

$(2x+3)(x+1)$

5. $6x^2 + 71x - 12$

$6x^2 + 72x - x - 12$

$6x(x+12) - 1(x+12)$

$(6x-1)(x+12)$

~~$\begin{array}{cc} -72 & \\ 72 & -1 \\ 71 & \end{array}$~~

15. $36 - t^{16}$

$(6+t^5)(6-t^5)$

17. $a^4 - 81b^4$

$(a^2+9b^2)(a^2-9b^2)$

$(a^2+9b^2)(a+3b)(a-3b)$

19. $x^3 - 8x^2 + 15x$

$x(x^2 - 8x + 15)$

$x(x-5)(x-3)$

5, 5 9, 11-16, 18, 19

9. $\sqrt{9h^{22}} = 3h^{11}$

11. $\sqrt{\frac{16}{9}} = \frac{4}{3}$

12. $\sqrt{\left(-\frac{2}{3}\right)^4} = \left(-\frac{2}{3}\right)^2 = \frac{4}{9}$

14. $-\sqrt{-144} = -12i$

13. $\sqrt[5]{-32} = -2$

15. $\sqrt[4]{a^{16}b^8} = a^4b^2$

16. $\pm \sqrt[4]{81x^4} = \pm 3x$

18. $\sqrt[3]{-d^6} = -d^2$

19. $\sqrt[5]{p^{25}q^{15}r^5s^{20}} = p^5q^3r^1s^4$